Amendments to the Specification

Please replace paragraph [0014] with the following amended paragraph:

[0014] Compared with normal slice mode, when the multilevel quantizer 240 applies multiple slice mode, the multilevel quantizer 240 uses a plurality of predetermined thresholds for data slicing; that is, the multilevel quantizer 240 uses more bits to represent the SS. Take a one-dimensional signal for example. In normal slice mode, there is only one predetermined threshold, i.e. 0. This means that when the received signal is larger than 0, the sliced signal is 1, and when the received signal is less than 0, the sliced signal is -1 (this can be regarded as the multilevel quantizer 240 using a single bit to represent the SS).

Please replace paragraph [0015] with the following amended paragraph:

[0015] In the present embodiment, there are three thresholds 0.66, 0, -0.66 in the multiple slice mode. When the received signal is larger than 0.66, the sliced signal is 1, when the received signal is between 0.66 and 0, the sliced signal is 0.33, when the received signal is between 0 and -0.66, the sliced signal is -0.33, and when the received signal is less than -0.66, the sliced signal is -1 (this can be regarded as the multilevel quantizer 240 using two bits to represent the SS). The description above is [[an]] a simplified example. The operation of the multilevel quantizer 240 can be much more complicated than the example because in a practical ~~communicaion~~ communication system, the signal is a two-dimensional signal on a complex plane with numerous predetermined points. However, people skilled in the art would easily implement the multilevel quantizer 240 for quantizing a two-dimensional signal base on the description of the specification.

Please replace paragraph [0017] with the following amended paragraph:

[0017] The error decision is hereby described. The control logic compares the signals received by the multilevel quantizer 240 with a predetermined level in normal slice mode.

If the difference is less than a predetermined threshold, the multilevel quantizer 240 is in reliable status. Take a one-dimensional signal for example. Assume that the predetermined levels are 1 and -1 in normal slice mode (i.e. the sliced signal can be 1 or -1), and the predetermined threshold is 0.5; when the received signal is 0.3, the sliced signal will be 1. However, the difference between 1 and 0.3 is 0.7, which is over the threshold 0.5, meaning that the multilevel quantizer 240 will be determined to be in an unreliable status according to error decision, and the multilevel quantizer 240 will use more predetermined levels for data slicing (i.e. sliced signals can be 1, 0.33, -0.33, -1). In this case, the received signal being 0.3 will be sliced into 0.33 by the multilevel quantizer 240 in the multiple slice mode. In such a manner, the correctness of the feedback signal to the FBE 260 can be enhanced, and the convergence of the system can be improved.

Please replace paragraph [0018] with the following amended paragraph:

[0018] The stop-and-go decision is hereby described. The stop-and-go decision calculates a series of possible signal values (i.e. possible points on the complex plane) according to a constant modulus algorithm. In the present embodiment, the stop-and-go decision means comparing the signals received by the multilevel quantizer 240 with a predetermined level and comparing the signals received by the multilevel quantizer 240 with a value resulting from the constant modulus algorithm. If the differences from the two comparisons have the same sign (positive/negative), the multilevel quantizer 240 is in a reliable status. Take a one-dimensional signal for example. Assume that the predetermined levels are 1 and -1 in normal slice mode. If the values resulting from the constant modulus algorithm are 0.7 and -0.7, and the received signal is 0.8, then the difference between 1 and 0.8 is 0.2, and the difference between 0.7 and 0.8 is -0.1. The two differences have different signs so that the multilevel quantizer 240 will be determined to be in an unreliable status, and the multilevel quantizer 240 will use more predetermined levels for data slicing. In the case that the two differences have the same sign, the multilevel quantizer 240 will be determined to be in a reliable status. For the

detail of the stop-and-go decision, please refer to "Blind Equalization and Carrier Recovery Using a "Stop-and-go" Decision-directed Algorithm", PICCHI and PRATI, IEEE Transactions on Communications, VOL. COM-35, NO.9, Sep, 1987, which is cooperated by reference herein.